

**Magnetic Resonance Spectroscopy for Brain Tumors**  
**CAG#: 00141N**

**Technology Assessment Questions**

For patients presenting with signs or symptoms of a space-occupying brain lesion:

1. For what metabolic profiles does the yield of MRS provide equivalent, complementary, or more accurate diagnostic information for (i) initial diagnosis, (ii) recurrence, or (iii) assessing therapy than
  - Brain biopsy
  - Conventional anatomic imaging studies
  - MRS + conventional anatomic imaging studies vs. brain biopsy
2. Does the use of MRS lead to an improved net health outcome by
  - Avoiding unnecessary biopsy
  - Obtaining appropriate biopsy, from appropriate location
  - Directing biopsy to an appropriate location
  - Receiving appropriate treatment
  - Avoiding an inappropriate treatment
3. Are voxel positions and operator error important factors in obtaining diagnostic images? If so, how do they impact MRS accuracy?